

AMENDMENT

Please amend the above-captioned application as follows:

In The Specification:

Please amend the specification as follows.

Please delete the pending title and insert therefor

✓ ~~METHODS FOR MAKING AND USING A THERMOPHILIC ENZYME AS A β -~~
~~GLYCOSIDASE--~~

In The Claims:

14. (Amended) A method for using a thermophilic enzyme as a β -glycosidase, comprising the following steps:

(a) providing an enzyme, wherein the enzyme comprises a sequence as set forth in SEQ ID NO:2 and the enzyme comprises four subunits to form a tetramer, wherein each subunit of the tetramer comprises a sequence as set forth in SEQ ID NO:2; and

(b) contacting the tetrameric enzyme with a substrate under conditions wherein the enzyme functions as a β -glycosidase on the substrate.

D¹ 15. (Amended) The method of claim 14, wherein the function comprises hydrolysis of a β -glucoside, wherein the β -glucoside comprises a long alkyl chain.

16. (Amended) The method of claim 15, wherein the long alkyl chain comprises 8 or more carbon atoms.

17. (Amended) The method of claim 14, wherein the enzyme has a high affinity to a β -glucoside comprising a long alkyl chain.

D² 20. (Amended) The method of claim 14, wherein the conditions comprise temperatures selected from the group consisting of 90°C or higher and 100°C or higher.
